

Module 1 Cheat Sheet: Python Basics

Package/Method	Description	Code Example
Comments	Comments are lines of text that are ignored by the Python interpreter when executing the code</td><td><pre># This is a comment</pre></td></tr><tr><td>Concatenation</td><td>Combines (concatenates) strings.</td><td><pre>Syntax: concatenated_string = string1 + string2 Example: result = "hello" + " John"/></pre></td></tr><tr><td>Data Types</td><td>- Integer - Float - Boolean - String</td><td><pre>Example: a=7 # Integer Value p=2.4 # Float Value is_valid = True # Boolean Value is_valid = False # Boolean Value f_name = "John" # String Value</pre></td></tr><tr><td>Indexing</td><td>Accesses character at a specific index.</td><td><pre>Example: my_string="hello" char = my_string[0]</pre></td></tr><tr><td>len()</td><td>Returns the length of a string.</td><td><pre>Syntax: len(string_name) Example: my_string="hello" length = len(my_string)</pre></td></tr><tr><td>lower()</td><td>Converts string to lowercase.</td><td><pre>Example: my_string="hello" uppercase_text = my_string.lower()</pre></td></tr><tr><td>print()</td><td>Prints the message or variable inside '()'.</td><td><pre>Example: print("hello, world") print(a+b)</pre></td></tr><tr><td>Python Operators</td><td>- Addition (+): Adds two values together. - Subtraction (-): Subtracts one value from another. - Multiplication (*): Multiplies two values. - Division (/): Divides one value by another, returns a float. - Floor Division (//): Divides one value by another, returns the quotient as an integer. - Modulo (%): Returns the remainder after division.</td><td><pre>Example: x = 5 y = 4 result_add = x + y # Addition result_sub = x - y # Subtraction result_mul = x * y # Multiplication result_div = x / y # Division result_floor = x // y # Floor Division result_mod = x % y # Modulo</pre></td></tr><tr><td>replace()</td><td>Replaces substrings.</td><td><pre>Example: my_string="hello" new_text = my_string.replace("hello", "hi")</pre></td></tr><tr><td>Slicing</td><td>Extracts a portion of the string.</td><td><pre>Syntax: substring = string_name[start:end] Example: my_string="hello" substring = my_string[0:5]</pre></td></tr><tr><td>split()</td><td>Splits string into a list based on a delimiter.</td><td><pre>Example: my_string="hello" split_text = my_string.split(",")</pre></td></tr><tr><td>strip()</td><td>Removes leading/trailing whitespace.</td><td><pre>Example: my_string="hello" trimmed = my_string.strip()</pre></td></tr><tr><td>upper()</td><td>Converts string to uppercase.</td><td><pre>Example: my_string="hello" uppercase_text = my_string.upper()</pre></td></tr><tr><td>Variable Assignment</td><td>Assigns a value to a variable.</td><td><pre>Syntax: variable_name = value Example: name="John" # assigning John to variable name x = 5 # assigning 5 to variable x</pre></td></tr></table></div><div data-bbox="44 608 145 630" data-label="Page-Footer"> Skills Network</div><div data-bbox="44 645 115 653" data-label="Page-Footer"><p>© IBM Corporation. All rights reserved.</p></div><div data-bbox="909 606 939 626" data-label="Page-Footer"><p>IBM</p></div>	